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**FINAL POLLUTION REPORT  
LIBBY ASBESTOS: EXPORT PLANT  
Libby, Lincoln County, Montana**

**ADMINISTRATIVE  
PAGE**

**I. HEADING**

**Date:** March 22, 2004  
**Site Name:** Libby Asbestos Site (Export Plant OU1)  
**From:** James Christiansen, RPM  
**To:** Kevin Mould, EPA Headquarters  
**POLREP No.:** #8 for Libby Asbestos, final POLREP for OU1, Export Plant

**II. BACKGROUND**

**Site No.:** BC  
**Response Authority:** CERCLA  
**CERCLIS No:** MT0009083840  
**NPL Status:** Added to NPL: 10/23/02  
**Action Memorandum Status:** Approved 5/23/00  
**Action Memorandum Amendment:** 08/13/01  
**Action Memorandum Amendment:** 05/09/02

**Start Date (OU 01 - Export Plant) Fund - Lead:** 06/01/00  
**Start Date (OU 01- Export Plant) PRP-Lead** 06/05/00  
**Completion Date:(OU 01- Export Plant) Fund - Lead:** 11/22/03  
**Completion Date:(OU 01- Export Plant) PRP - Lead:** 02/07/03

**III. SITE INFORMATION**

**A. Incident Category**

PRP and Fund Lead Mix (PRP performed most of the work; EPA completed certain portions)

**B. Site Description**

The Libby Asbestos Site includes an inactive vermiculite mine located in northwestern Montana. Vermiculite mining at Zonolite Mountain (the "mine") was commenced by the Universal Zonolite Company in the 1920s. In 1963, W.R. Grace acquired the property and continued operations until September, 1990.

The processed ore was trucked down the Rainy Creek Road to a Screening Plant, which separated the milled ore into several sizes. Subsequently, the screened ore

was moved by conveyor belt across the Kootenai River and shipped either to the Export/Expansion Plant in Libby for further processing or across the country by rail.

This final POLREP addresses only OU1 - the former Export Plant in Libby. Sampling showed that asbestos, a hazardous substance, was present in soils, raw ore, ore-concentrate and other soil-like materials at various locations in and around the community of Libby including the Export Plant. Visible vermiculite was evident in soils around the Export Plant and analytical results showed asbestos levels in soil from 2-10%. Structures at the facility were contaminated with visible vermiculite and other processing wastes and residues.

#### **1. Site Location**

The Export Plant is located off Highway 37 on City Service Road, encompasses about 11 acres and is located in Section 7, Township 30 N, Range 31 W of Lincoln County, Montana.

#### **2. Description of Threat**

The ore body from which the vermiculite ore was mined contains significant occurrences of amphibole asbestos. Processing of the vermiculite ore, with amphibole asbestos intermixed, caused high dust and airborne releases of asbestos fibers. The release of these fibers into the air makes them available for inhalation and completes the human exposure pathway. These asbestiform fibers have been linked to certain kinds of lung disease and abnormalities. Medical screening completed in Libby showed lung abnormalities among Grace mine workers, as well as people beyond Grace workers and their families, who came into "recreational" contact with the fibers.

The Acting Assistant Administrator, Office of Solid Waste and Emergency Response has determined that the presence of the asbestos at the Site may present an imminent and substantial endangerment in the Action Memorandum.

#### **C. Preliminary Assessment/Site Inspection Results**

Sampling conducted by EPA's Removal Program began in December 1999. At the Export Plant, amphibole asbestos was detected using polarized light microscopy (PLM) in 76 out of 109 samples, with 17 samples containing at or greater than 2% and one sample measuring 10%. Additionally, visible unexpanded vermiculite remained in the soil and surrounding surfaces of the property.

### **IV. RESPONSE INFORMATION**

**A. Situation**

The Export Plant was located adjacent to the BNSF railyards that were used for distribution of the commercial vermiculite product. The Export Plant property was also next to two baseball fields that were used heavily and were also contaminated with asbestos. These fields have since been remediated and are currently used by local youth. The Export Plant was originally used for exfoliation of vermiculite and processing of the final product. Later, the property was leased by a lumber company, Millworks West, that used the former export plant buildings to conduct their business. These buildings and the surrounding soil were contaminated with asbestos fibers and unexpanded vermiculite.

EPA directed W.R. Grace to clean up the former Export Plant under a Unilateral Administrative Order (CERCLA-8-2000-10). Cleanup began in August, 2000, which included decontamination of the buildings on the property and removing approximately 50 cubic yards of contaminated soil. Unfortunately, this cleanup attempt was unsatisfactory, as post clean up samples taken from encapsulated areas of the buildings still contained high amounts of asbestos. On July 27, 2001, W.R. Grace was ordered by the EPA to demolish the buildings, remove the debris and complete the excavation and removal of contaminated soil. This work was completed in November, 2002 and the Final Report was submitted on February 7, 2003. In all, approximately 19,000 cubic yards of contaminated soil and debris were removed from the site. The Millwork West business was relocated to an area near the former Stimson Lumber Mill on Highway 2 by EPA. The entire site was backfilled and regraded. The City of Libby took possession of the property. Currently, no buildings or other structures exist on the property.

In 2003, as they were beginning construction of a new boat ramp, workers for the City of Libby discovered vermiculite and asbestos in subsurface soils in an area adjacent to the former screening plant. While this contamination is likely related to the former Export plant, it was not considered part of OU1, which was strictly defined in the UAO with W.R. Grace. Construction of the boat ramp was stopped and EPA began cleanup shortly after. Cleanup of this area was completed in August, 2003, though a small amount of contamination remains near Highway 37. This contamination will be addressed later.

**B. Enforcement**

Work at the export plant was conducted under Unilateral Order by W.R. Grace.

**V. COST INFORMATION**

Approximate costs incurred by EPA were:

Cleanup: \$344,606

Oversight: \$760,916

The costs incurred by W.R. Grace were approximately \$3,645,000. EPA sought recovery of costs from W.R. Grace and won an award for the entire amount in Federal court. W.R. Grace is currently in bankruptcy.

## **VI. DISPOSITION OF WASTES**

Approximately 19,000 cubic yards of contaminated material including soil and debris was excavated and disposed of at the former vermiculite mine, located on Rainy Creek Road.